

Claims

1. A device connector-to-lead terminal connector for an implantable
5 medical device comprising:
- (a) an implantable pulse generator contained within a hermetically sealed housing;
 - (b) a device connector affixed to a predetermined surface of said housing, the device connector having first and second side surfaces and a front surface
10 and having at least one longitudinally extending bore formed inwardly from the front surface adapted to receive a proximal terminal of a medical lead therein, the proximal terminal including a conductive pin at a proximal end of the terminal;
 - (c) an electrical contact disposed in the device connector and positioned to cooperate with the conductive pin when the proximal terminal of the
15 medical lead is fully inserted into the longitudinal bore;
 - (d) said device connector having first and second side ports extending inwardly from said first and second side surfaces to intersect with the longitudinal bore in general alignment with the contact;
 - (e) an elastomeric tube inserted through one of the first and second
20 side posts, the elastomeric tube having a central lumen;
 - (f) a first latch member adapted to be inserted through the first side port, the first latch member including a pair of bifurcated legs extending into said lumen; and
 - (g) a second latch member insertable through the second side port
25 into said lumen and having a tapered wedge surface adapted to spread the bifurcated legs of the first latch member apart and press the elastomeric tube against the conductive pin with a force sufficient to hold the conductive pin in place against the electrical contact when the first and second latch members are squeezed together.

2. The device connector-to-lead terminal connector as in claim 1 wherein the first latch member includes a barb on each of the pair of bifurcated legs and the elastomeric tube includes a shoulder proximate one end thereof for receiving said barbs when the first latch member is assembled into the device connector.

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3. The device connector-to-lead terminal connector as in claim 1 wherein the first latch member comprises a generally flat head with said pair of legs integrally formed therewith and extending generally perpendicularly therefrom.

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4. The device connector-to-lead terminal connector as in claim 1 wherein said second latch member comprises a generally flat head member with said tapered wedge surface integrally formed therewith and extending generally perpendicularly therefrom.

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5. The device connector-to-lead terminal connector as in claim 2 wherein said first latch member and said second latch member interlock with one another upon their being squeezed together.

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6. The device connector-to-lead terminal connector as in claim 1 wherein the elastomeric tube establishes a body fluid impervious seal between the first and second latch members and the device connector when the first and second latch members are squeezed together.

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7. In an implantable medical device, said device having an implantable pulse generator contained within a hermetically sealed housing, a device connector affixed to a predetermined surface of said housing, the device connector having first and second side surfaces and a front surface and having at least one longitudinally extending bore formed inwardly from the front surface adapted to receive a proximal terminal of a medical lead therein, the proximal terminal including a conductive pin at a proximal end of the terminal, and an electrical contact disposed in the device connector

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and positioned to cooperate with the conductive pin when the proximal terminal of the medical lead is fully inserted into the longitudinal bore, an improved lead terminal connector for securing the lead terminal in place, comprising:

- 5 (a) first and second side ports extending inwardly from said first and second side surfaces of the header to intersect with the longitudinal bore and in general alignment with the electrical contact;
- (b) an elastomeric tube inserted through one of the first and second side ports, the elastomeric tube having a central lumen;
- 10 (c) a first latch member adapted to be inserted through the first side port, the first latch member including a pair of bifurcated legs extending into said lumen; and
- (d) a second latch member insertable through the second side port into said lumen and having a tapered wedge surface adapted to spread the bifurcated legs of the first latch member apart and press the elastomeric tube against the
15 conductive pin with a force sufficient to hold the conductive pin in place against the electrical contact when the first and second latch members are squeezed together.

8. The device connector-to-lead terminal connector as in claim 7 wherein the elastomeric tube establishes a body fluid impervious seal between the first and
20 second latch members and the device connector when the first and second latch members are squeezed together.

9. The lead terminal connector as in claim 7 wherein the first latch member includes a barb on each of the pair of bifurcated legs and the elastomeric tube includes
25 a shoulder proximate one end thereof for receiving said barbs when the first and second latch members are squeezed together.

10. The lead terminal connector as in claim 7 wherein the first latch member comprises a generally flat head member with said pair of legs integrally formed
30 therewith and extending generally perpendicularly therefrom.

11. The lead terminal connector as in claim 7 wherein said second latch member comprises a generally flat head member with said tapered wedge surface integrally formed therewith and extending generally perpendicularly therefrom.

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12. The lead terminal connector as in claim 9 wherein said first latch member and said second latch member interlock with one another upon their being squeezed together.

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13. The device connector-to-lead terminal connector as in claim 12 wherein said elastomeric tube includes a radial flange on opposed ends thereof, said radial flanges forming a fluid impervious seal between then first and second side surfaces of the device connector when the first and second latch members are interlocked to one another.

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14. The device connector-to-lead terminal connector as in claim 1 wherein the electrical contact and first and second latching members, when inserted into the first and second side ports are located in the device connector to cooperate with a predetermined portion of the conductive pin that is defined by an international standard for selected medical leads.

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